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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,390	10/21/2003	Steven J. Hobbs	0152-PA	8651

7590 02/09/2005

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Crompton Corporation
Benson Road
Middlebury, CT 06749

EXAMINER

REYES, HECTOR M

ART UNIT	PAPER NUMBER
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1625

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,390

Applicant(s)

HOBBS, STEVEN J.

Examiner

Hector M Reyes

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-10 and 12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4 and 6 is/are allowed.
- 6) ☒ Claim(s) 7-10 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner's acknowledgment

Examiner acknowledges Applicant's amendment to the Claims and Remarks dated on November 5, 2004 and Applicant's second amendment filed on January 28, 2005.

Status of The Claims

Claims 5, 11 and 13 have been canceled. Claims 1, 2, 6, 7, and 12 have been amended. Currently, Claims 1-4, 6-10 and 12 are under examination.

Rejection Withdrawn

Rejection of Claim 1 Claim 1 under 35 U.S.C. 102(b) as being anticipated by Shuichi, JP 02091943 is withdrawn in view of Applicant's remarks.

New Rejection

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7-10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by:

- Zon et al, Us patent 4876020 (1989)

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- Van Wijngaarden et al, US patent 4869837 (1989) and
- Van Krutchen et al, US patent 4810398 (1989).

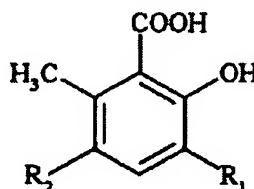
Zon discloses compositions comprising alkyl salicylic acids, see column 2, lines 10-17.

Van Wijngaarden discloses compositions comprising alkyl salicylic acids, see for instance column 2, lines 3-17.

Van Krutchen discloses compositions comprising alkyl salicylic acid, see for example column 1, lines 63-668 and column II, lines 1-15.

Claims 7-10 and 12 are also rejected in view of Applicants disclosure wherein it is clearly acknowledged that Alkyl salicylic acids are known in the art and used in a variety of useful compositions such as antibacterial and anti germ compositions, see for instance page 4, lines 5-18:

5 **U.S. Patent No. 5,049,685 discloses a nuclear substituted salicylic acid represented by the following general formula**



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wherein R_1 represents a methyl group, an isopropyl group, a tert-butyl group, a tert-amyl group, a tert-hexyl group, a tert-octyl group, an α,α -dialkylbenzyl group or a nuclear substituted α,α -dialkylbenzyl group; and R_2 represents a tert-butyl group, a tert-amyl group, a tert-hexyl group, a tert-octyl group, an α,α -dialkylbenzyl group or a nuclear substituted α,α -dialkylbenzyl group) and a salt thereof. The nuclear substituted salicylic acids and salts thereof are said to have good solubility in water, organic solvents or organic polymeric compounds and that they are very favorable as bactericidal and germicidal agents, stabilizers for polymeric compounds or color developing agents for recording materials.

Applicant is hereby advised that claims 7-10 and 12 are improper product-by-process claims. Thus, any reference disclosing the product would readily anticipate the said claims regardless of the process limitations included in the said claims.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: In claims 1-5, as renumbered Applicants claim a process for preparing alkyl salicylic acids comprising:

- Reacting salicylic acid with an olefin having at least four carbon atoms at a temperature range of 50 to 200 °C and
- In the presence of a perfluoro alkyl sulfonic acid and alkyl sulfonic acid or acidic clay as a catalyst.

In claims 6-10, as re-numbered, Applicants claim a composition comprising an alkyl salicylic acid prepared by a process described in claims 1-5.

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No prior art disclosing or suggesting the instant invention was found. The closest art was found in:

- Shuichi, JP 02091943 (1990) and
- Feliden et al, EP 0771782.

Shuichi discloses the preparation of alkyl salicylic acid derivatives obtained by reacting salicylic acid with a styrenic compound in the presence of an organic sulfonic acid used as a catalyst. On the other hand, Feliden discloses a process for the preparation of alkyl salicylic acid comprising reacting salicylic acid with an olefin of at least 6 carbon atoms and requiring as catalyst sulfuric acid. The said references do not anticipate or suggest the instant invention because:

- None of the references carry out the alkylation with olefin having at least four carbon atoms, Shuichi indeed discloses or suggests a process wherein an olefin is not required at all.
- Feliden does not disclose or suggest the instant process since it requires sulfuric acid as a catalyst and different olefins.
- The nature of a given catalyst and its particular behavior are considered unpredictable in the art, therefore, **it would not have been obvious the use of an organic sulfonic acid as a catalyst in place of sulphuric acid in order to carry out Feliden process with Shuichi catalyst.** The acidic strength and chemical structure of each acid-sulphuric acid being a mineral acid vs. a very mild organic acid-organo sulfonic acid- are considerably different in order to be substituted as equivalents as required by the combination of processes.

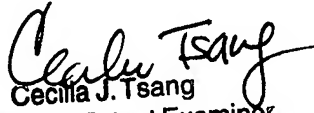
CONCLUSION

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Hector M. Reyes, whose telephone number is (571) 272-0691. The Examiner can normally be reached Monday through Friday from 8:30 to 4:30pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor Ms. Cecilia Tsang can be reached at (571) 272-0652.

Hector M. Reyes
AU 1625
USPTO Reg. # P-54,846
February 5, 2005

Ms. Cecilia Tsang
Patent Examiner Supervisor


Cecilia J. Tsang
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